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09/873,014	06/01/2001	Theodore W. Nye	TRW(AP)5576	3227

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EXAMINER
ENGLISH, PETER C

ART UNIT	PAPER NUMBER
3616	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/873,014	Applicant(s) NYE ET AL.
	Examiner Peter C. English	Art Unit 3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3-9* is/are allowed.

6)☒ Claim(s) *1,2 and 10-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *02 January 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Drawings

1. The proposed corrections to Figs. 2 and 3 filed on 02 January 2003 have been approved.

2. The proposed corrections to Fig. 1 filed on 02 January 2003 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of the force detection device 176 on the upper surface of the anchor point 23, or at the juncture between the webbing 20 and the anchor point 23.

3. Corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Specification

4. The specification is objected to for the reason given in item 5 of the previous Office action mailed on 30 August 2002. Appropriate correction is required.

5. The amendment filed on 02 January 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the description of the force detection device 176 as being located "adjacent the anchor point 23" (see line 7 of the replacement paragraph inserted at page 28, line 5); and the description of an alternative location for the force detection device 176 as being "on the pretensioner 24" (see line 10 of the replacement paragraph inserted at page 28, line 5). Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

6. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 16 contains new matter because it defines the impending crash retraction force as being "greater" than the crash retraction force (see claim 16, line 39). The specification describes the impending crash retraction force as being less than the crash retraction force (see page 36, line 16-page 38, line 21). The examiner suggests: in claim 16, at line 39, change "greater" to "less".

7. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is indefinite because it fails to describe the relationship between the "pretensioner" (line 9) and the "gear assembly" (line 13) and "electric motor" (line 14). Since these terms are introduced separately, the claim language suggests that the pretensioner is a different element of the invention than the gear assembly and electric motor. This is inaccurate since the gear assembly and electric motor are part of the pretensioner.

In claim 16, at line 9, the term "the pre-crash condition" lacks proper antecedent basis. The examiner suggests: at line 9, change "pre-crash" to "impending crash".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Frantom et al. (US 4,655,312). Frantom et al. discloses a seat belt system comprising: a seat belt 10 wound on a retractor 14; a reversible electric motor 42 that drives a spool 282 of the retractor 14 via a gear assembly 284, 286; a controller 28 for controlling the motor 42; and a crash sensor 32 that supplies a crash signal to the controller 28. When no crash signal is produced by the sensor 32, the controller 28 operates the motor 42 to extend and retract the seat belt 10 (see column 5, lines 17-68). In response to a crash signal from the sensor 32, the

controller 28 operates the motor 42 to pretension the seat belt 10 (see column 6, lines 1-9). For pretensioning the motor 42 is operated at a higher power level for a brief period (see column 5, lines 4-14).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frantom et al. (US 4,655,312) in view of Behr (US 5,558,370). Frantom et al. (see explanation above) lacks a proximity sensor for pretensioning the seat belt in advance of a crash. Behr teaches such a proximity sensor 26 (see column 5, line 59-column 6, line 15). From this teaching of Behr, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frantom et al. by providing a proximity sensor for pretensioning the seat belt in advance of a crash in order to place an occupant in a proper seating position in advance of a crash, thereby enhancing occupant safety.

Response to Arguments

13. Applicant's arguments filed on 02 January 2003 have been fully considered but they are not persuasive. Applicant argues that the pretensioner of Frantom et al. does not pull the occupant backward. The examiner disagrees because Frantom et al. states that the motor is operated with greater power/speed under crash conditions (see column 5, lines 4-14), and that the motor is "run at maximum speed to take-up as much of the seat belt's slack as possible before the crash loads are applied" (see column 10, lines 40-43). The increased power/speed of the motor coupled with the purpose of retracting as much of the seat belt as possible produces seat belt forces that will pull the occupant backward, at least to a certain degree. Further, while applicant's arguments refer to a retraction force of 562 pounds, the claims are not limited to a force of this magnitude.

Applicant also argues that Frantom et al. and Behr fail to teach using a smaller retraction force during an impending collision and a larger retraction force during an actual collision. The examiner disagrees. As shown in Fig. 4, Behr teaches actuating a motor for high tension (step 216) when a sensor detects an impending collision (step 310). When a sensor detects an actual collision (step 222), a larger retraction force is used (step 224).

Allowable Subject Matter

14. Claims 3-9 are allowed.

15. Claim 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to

37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 703-308-1377. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 703-308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

1/29/03

Peter C. English
Primary Examiner
Art Unit 3616

pe
January 29, 2003